Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

BLUE RIDGE REGIONAL OFFICE
901 Russell Drive, Salem, VA 24153
(540) 562-6700 FAX (540) 562-6725
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director
(804) 698-4000

Robert J. Weld
Regional Director

November 15, 2019

Mr. John Hattersley
Executive Vice-President
Dynax America Corporation
568 East Park Drive
Roanoke, VA 24019

Location: Botetourt County
Registration No.: 21279

Dear Mr. Hattersley:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning November 15, 2019.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on September 10, 2019 and solicited written public comments by placing a newspaper advertisement in *The Roanoke Times* on October 4, 2019. The thirty-day required comment period, provided for in 9VAC5-80-270 expired on November 4, 2019.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Dynax America Corporation of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Mary Monroe at mary.monroe@deq.virginia.gov or (540) 562-6850.

Sincerely,

Robert J. Weld
Regional Director

Attachment: Permit

cc: Riley Burger, EPA Region III (burger.riley@epa.gov)
Timothy Overstreet, DEQ BRRO Air Compliance Inspector (electronic)
Susan Tripp, DEQ OAPP (susan.tripp@deq.virginia.gov)
Jamie Kemper, Dynax America Corporation (jkemper@dxa.com)
Peter Ozoh, Dynax America Corporation (pozoh@dxa.com)

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

BLUE RIDGE REGIONAL OFFICE
901 Russell Drive, Salem, Virginia 24153
(540) 562-6700 FAX (540) 562-6725
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director
(804) 698-4000

Robert J. Weld
Regional Director

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Dynax America Corporation
Facility Name:	Dynax America Corporation
Facility Location:	568 East Park Drive, Roanoke, Virginia
Registration Number:	21279
Permit Number:	BRRO-21279

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act

November 15, 2019
Effective Date

Robert J. Weld, Regional Director

November 14, 2024
Expiration Date

November 15, 2019
Signature Date

Table of Contents, pages 3-4
Permit Conditions, pages 9 through 46

Table of Contents

ATTACHMENTS

Attachment A: Friction Material Grinding and Sanding (PS-1 Processes) – PM10 CAM Plan

Attachment B: Surface Treatment Line 3 – HCl CAM Plan

Attachment C: Surface Treatment Line 4 – HCl CAM Plan

Facility Information

Permittee:
Dynax America Corporation
568 East Park Drive
Roanoke, Virginia 24019

Responsible Official
John Hattersley
Executive Vice-President

Facility
Dynax America Corporation
568 East Park Drive
Roanoke, Virginia 24019

Contact Person
Jamie Kemper
Quality Systems and Environmental Manager
(540) 777-9412

County-Plant Identification Number: 51-023-00039

Facility Description: NAICS Code: 336350 – Motor Vehicle Transmission and Power Train Parts Manufacturing

The facility manufactures automatic transmission components: friction disks, mating plates, torque converter clutches and clutch pack assemblies for power train systems.

Emission Units

Process Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
ST3	S8	Surface Treatment Line 3	19,200 parts/hr	Scrubber	PCD9	HCl	11/13/19
ST4	S4	Surface Treatment Line 4	24,900 parts/hr	(2) Scrubbers in series	PCD8, PCD6	HCl	11/13/19
Sat2	S3	Saturation Line 2 (includes dip tank, drying oven & curing)	1231 tons/yr	Direct Flame Afterburner	PCD2	VOC/HAP	11/13/19
SatSolv	S3	Saturation line solvent cleaning & dilution	1341 tons/yr	Direct Flame Afterburner	PCD2	VOC/HAP	11/13/19
Adh2	S1 or S3 S5, S6, S7 or S9	Disc Line 3: two roll coaters (RC3 & RC4) & Segment Facing Roll Coater (SFRC-1)	88 tons/yr	Direct Flame Afterburner & RTO	PCD1**/PCD2 PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
AdhSolv	S1 or S3 S5, S6, S7 or S9	Adhesive lines solvent cleaning & dilution	536 ton/yr	Direct Flame Afterburner & RTO	PCD1**/PCD2 PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
TC	S1 or S3	Torque Converter Line: TC1 – one roll coater (RC1 MACT MMMM subject) TC2 – one roll coater (RC2 Non-MACT subject)	113 tons/yr	Direct Flame Afterburner	PCD1**/PCD2	VOC/HAP	11/13/19
TM-1		Target Molding Machine		---	---	---	11/13/19

AMRC-1	S5, S6, S7 or S9	Aftermarket Roll Coater/Bonder	900 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
SFRC2-SFRC9	S5, S6, S7 or S9	OS Machinery – Segment Facing Roll Coaters/Bonders	1,286 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
SFRC10-SFRC14	S5, S6, S7 or S9	Segment Facing Roll Coaters	1,286 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
DL1	S5, S6, S7 or S9	DOT Roll Coater/Bonder	1,059 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
DL2	S5, S6, S7 or S9	DOT Roll Coater/Bonder	1,286 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
DL3-DL7	S5, S6, S7 or S9	Dot Line Roll Coaters	1,286 pieces/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
PS-1	DC-1	Friction Material Grinding & Sanding (see 10/6/17 mNSR permit for individual equipment)	Various	Donaldson-Torit Fabric Filter	PCD DC-1	PM/PM10	10/06/17
PW-1	S5, S6, S7 or S9	Parts Washer	4.65 gallons/hr	RTO	PCD3, PCD4, PCD5, PCD7***	VOC/HAP	11/13/19
BOILER	B1	Mohawk NG boiler, Model SN4-5-508	4.2 MMBtu/hr	---	---	---	---
WWGEN	WWGEN	Propane-fired Wastewater Treatment Plant Emergency Generator	126 BHP	---	---	---	---
ITGEN	ITGEN	Generac Propane-fired IT Emergency Generator	64 BHP	---	---	---	---

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

** PCD1 (Direct Flame Afterburner) will be utilized as a backup control device for PCD2 (Direct Flame Afterburner).

*** The exhaust gases from the process equipment can be vented to any of the RTOs (PCD3, PCD4, PCD5, PCD7) depending upon which processes are operating, air handling system requirements and damper positions.

Fuel Burning Equipment Requirements – (BOILER)

Limitations

1. **Fuel Burning Equipment Requirements - Limitations -** Visible emissions from the natural gas boiler (BOILER) stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9VAC5-80-110 and 9VAC5-50-80)

MACT Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters (BOILER)

General Compliance Requirements

2. **MACT Subpart DDDDD -** The permittee shall comply with the applicable requirements of 40 CFR 63 Subpart DDDDD as listed in Conditions 3 through 11 by the applicable compliance date as specified in §63.7495(b).
(9VAC5-80-110 and 40 CFR 63.7495)

3. **MACT Subpart DDDDD –** The permittee shall comply with the applicable General Provisions as specified in 40 CFR 63.7565.
(9VAC5-80-110 and 40 CFR 63.7565)

Work Practice Standards

4. **MACT Subpart DDDDD -** The permittee shall comply with the work practice specified in 40 CFR 63.7500(e).
(9VAC5-80-110 and 40 CFR 63.7500)

5. **MACT Subpart DDDDD -** The permittee shall comply with the applicable work practice tune-up requirements specified in 40 CFR 63.7515(d).
(9VAC5-80-110 and 40 CFR 63.7515)

Initial and Continuous Compliance Requirements

6. **MACT Subpart DDDDD -** The permittee shall comply with the initial compliance demonstration for the work practice standards specified in 40 CFR 63.7530(e).
(9VAC5-80-110 and 40 CFR 63.7530)

7. **MACT Subpart DDDDD -** The permittee shall comply with the continuous compliance requirements specified in 40 CFR 63.7540(a)(12) and (b).
(9VAC5-80-110 and 40 CFR 63.7540)

Notification, Reports and Records

8. **MACT Subpart DDDDD** - The permittee shall comply with the notification requirements specified in 40 CFR 63.7545(a) and (e).
(9VAC5-80-110 and 40 CFR 63.7545)

9. **MACT Subpart DDDDD** - The permittee shall comply with the reporting requirements specified in 40 CFR 63.7550(a), (b), and (c).
(9VAC5-80-110 and 40 CFR 63.7550)

10. **MACT Subpart DDDDD** – The permittee shall keep records as specified in 40 CFR 63.7555(a)(1).
(9VAC5-80-110 and 40 CFR 63.7555)

11. **MACT Subpart DDDDD** – The permittee shall keep records in a form suitable and readily available for expeditious review according to 40 CFR 63.7560(a), (b) and (c).
(9VAC5-80-110 and 40 CFR 63.7560)

Fuel Burning Equipment Requirements – (WWGEN & ITGEN)

Limitations

12. **Fuel Burning Equipment Requirements - Limitations** - Visible emissions from the emergency engines (WWGEN & ITGEN) stacks shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9VAC5-80-110 and 9VAC5-50-80)

MACT Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines (WWGEN & ITGEN)

13. **MACT Subpart ZZZZ** - For the emergency engines (WWGEN & ITGEN), the permittee shall comply with 40 CFR 63 Subpart ZZZZ by complying with the applicable requirements of 40 CFR 60 Subpart JJJJ as listed in Conditions 14 through 18. No other requirements of this subpart apply.
(9VAC5-80-110 and 40 CFR 63.6590(c))

NSPS JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (WWGEN & ITGEN)

General Compliance Requirements

14. **NSPS JJJJ** –The permittee shall comply with the applicable requirements of 40 CFR 60 Subpart A as listed in 40 CFR 60 Subpart JJJJ Table 3.
(9VAC5-80-110 and 40 CFR 60.4246)

Emission Standards and Other Requirements

15. **NSPS JJJJ** – The emergency engines (WWGEN & ITGEN) shall comply with the emission limitations of 40 CFR 60 Subpart JJJJ Table 1 for the entire life of the engine.
(9VAC5-80-110, 40 CFR 60.4233(e), and 40 CFR 60.4234)

16. **NSPS JJJJ** – If the emergency stationary SI internal combustion engines (WWGEN & ITGEN) do not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter on each engine.
(9VAC5-80-110 and 40 CFR 60.4237(c))

Compliance Requirements

17. **NSPS JJJJ** –The permittee shall comply with Condition 15 in accordance with 40 CFR 60.4243(b)(1) and (d). Operation for non-emergency purposes may require a permit to modify and operate pursuant to 9VAC5-80 Article 6.
(9VAC5-80-110 and 40 CFR 60.4243)

Reports and Records

18. **NSPS JJJJ** –The permittee shall maintain records and submit reports as required in 40 CFR 60.4245(a), (b), and (e).
(9VAC5-80-110 and 40 CFR 60.4245)

Process Equipment Requirements – (Sat2, Adh2, TC, SatSolv, AdhSolv, SFRC2-SFRC14, AMRC-1, DL1-DL7, TM-1 and PW-1)

Limitations

19. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions from saturation line (Sat2), the adhesive line (Adh2), the torque converter line (TC), and all dilution and cleaning processes (SatSolv and AdhSolv) shall be controlled by incineration (oxidizer). The incineration units (oxidizers) shall have a minimum destruction efficiency of 97.5 percent and a minimum set point temperature as determined by performance testing acceptable to VDEQ demonstrating compliance with the minimum destruction efficiency. The incineration units (oxidizers) shall be provided with adequate access for inspection and shall be in operation when the aforementioned processes are operating. The incineration units (oxidizers) will be in operation when any production operations vented to the respective incineration units (oxidizers) are in operation.
(9VAC5-80-110 and Condition 1 of the 11/13/19 Permit Document)

20. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions from the saturation line (Sat2) and the dilution and cleaning process (SatSolv) shall be controlled by total enclosure of the process equipment. For Sat2 this means a permanent total enclosure meeting the Method 204 standard.
(9VAC5-80-110 and Condition 2 of the 11/13/19 Permit Document)

21. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions from the adhesive line (Adh2), the torque converter line (TC), and the adhesive line dilution and cleaning process (AdhSolv) shall be controlled by hoods and enclosures sufficient to achieve at least 90.0% capture efficiency for each line.
(9VAC5-80-110 and Condition 3 of the 11/13/19 Permit Document)

22. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions from the coating lines (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, DL3 through 7) and parts washer (PW-1) shall be controlled by incineration. The incineration unit(s) (oxidizer(s)) shall have minimum set point temperature as determined by performance testing demonstrating a minimum destruction efficiency of 99%. Each oxidizer shall be provided with adequate access for inspection and shall be in operation when any of the coating lines is in operation.
(9VAC5-80-110 and Condition 4 of the 11/13/19 Permit Document)

23. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions capture devices shall be installed sufficient to achieve at least 97.5% capture efficiency for each of the coating lines (SFRC-2 through SFRC-7, AMRC-1, DL1, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1).
(9VAC5-80-110 and Condition 5 of the 11/13/19 Permit Document)

24. **Process Equipment Requirements – Limitations** - Volatile organic compound (VOC) emissions capture devices shall be installed sufficient to achieve at least 80% capture efficiency for each of the coating lines (SFRC-8, SFRC-9, and DL2).
(9VAC5-80-110 and Condition 6 of the 11/13/19 Permit Document)

25. **Process Equipment Requirements – Limitations** - The approved fuel for the incinerator units (oxidizers PCD1, PCD2) is natural gas. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110 and Condition 7 of the 11/13/19 Permit Document)

26. **Process Equipment Requirements – Limitations** - The approved fuel for the incinerators (oxidizers PCD3, PCD4, PCD5, PCD7) is natural gas. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110 and Condition 8 of the 11/13/19 Permit Document)

27. **Process Equipment Requirements – Limitations** - At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic

compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9VAC5-80-110 and Condition 9 of the 11/13/19 Permit Document)

28. **Process Equipment Requirements – Limitations -** The throughput of volatile organic compounds (VOC) used in the saturation line (Sat2) and the saturation line dilution and cleaning process (SatSolv) combined shall not exceed the limits stated below, calculated monthly as the sum of each consecutive 12 month period:

Volatile Organic Compounds	280.5 tons/month	2,337.4 tons/yr

(9VAC5-80-110 and Condition 12 of the 11/13/19 Permit Document)

29. **Process Equipment Requirements – Limitations -** The throughput of volatile organic compounds (VOC) used in the adhesive line (Adh2), the torque converter line (TC), and the adhesive dilution and cleaning process (AdhSolv) combined shall not exceed the limits stated below, calculated monthly as the sum of each consecutive 12 month period:

Volatile Organic Compounds	81.8 tons/month	682.0 tons/yr

(9VAC5-80-110 and Condition 13 of the 11/13/19 Permit Document)

30. **Process Equipment Requirements – Limitations -** The throughput of target resin matrix for the target molding machine (TM-1) shall not exceed 26.6 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 14 of the 11/13/19 Permit Document)

31. **Process Equipment Requirements – Limitations -** The throughput of methanol for the parts washer (PW-1), before controls, shall not exceed 10.0 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 15 of the 11/13/19 Permit Document)

32. **Process Equipment Requirements – Limitations -** Visible emissions from the incineration units (oxidizers PCD1, PCD2) shall not exceed five percent (5%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-110 and Condition 21 of the 11/13/19 Permit Document)

33. **Process Equipment Requirements – Limitations** - Visible emissions from each oxidizer (PCD3, PCD4, PCD5 & PCD7) exhaust shall not exceed 5 percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-110 and Condition 22 of the 11/13/19 Permit Document)

34. **Process Equipment Requirements – Limitations** - Emissions from the operation of the saturation line (Sat2) and the saturation line dilution and cleaning process (SatSolv) combined, including fugitive emissions, shall not exceed the limits specified below:

Volatile Organic Compounds	55.9 tons/yr

(9VAC5-80-110 and Condition 16 of the 11/13/19 Permit Document)

35. **Process Equipment Requirements – Limitations** - Emissions from the operation of the adhesive line (Adh2), the torque converter line (TC), and the adhesive dilution and cleaning process (AdhSolv) combined, including fugitive emissions, shall not exceed the limits specified below:

Volatile Organic Compounds	91.2 tons/yr

(9VAC5-80-110 and Condition 17 of the 11/13/19 Permit Document)

36. **Process Equipment Requirements – Limitations** - Emissions from the operation of the coating lines, after-market roll coater, and DOT lines (SFRC-2 through SFRC-9, AMRC1, DL1 and DL2) shall not exceed the limits specified below:

Volatile Organic Compounds (as Methanol)	3.2 lbs/hr	13.9 tons/yr

(9VAC5-80-110 and Condition 19 of the 11/13/19 Permit Document)

37. **Process Equipment Requirements – Limitations** - Emissions from the operation of coating lines SFRC10 through 14 and DL3 through 7 shall not exceed the limits specified below:

Volatile Organic Compounds (as Methanol)	1.2 lbs/hr	5.2 tons/yr

(9VAC5-80-110 and Condition 20 of the 11/13/19 Permit Document)

Monitoring

38. **Process Equipment Requirements – Monitoring** – Each oxidizer (PCD1, PCD2) shall be equipped with continuous temperature sensors at or near the chamber exit to indicate the temperature in the chamber. The chamber temperature shall be continuously recorded, excepting brief period of instrument maintenance or repair.
(9VAC5-80-110 and Condition 1 of 11/13/19 Permit Document)

39. **Process Equipment Requirements – Monitoring** – Each coating line and parts washer shall be equipped with devices to continuously measure and record duct static pressure. Alternatively, each coating line and parts washer within a total enclosure meeting the design criteria for permanent total enclosure in Method 204 of 40CFR51 Appendix M shall be equipped with devices to continuously measure and record enclosure differential pressure. Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures, which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when any of the coating lines (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1) are operating.
(9VAC5-80-110 and Condition 10 of 11/13/19 Permit Document)

40. **Process Equipment Requirements – Monitoring** – Each oxidizer (PCD3, PCD4, PCD5, PCD7) shall be equipped with a device to continuously measure and record the temperature at or near the chamber exit to indicate the temperature in the chamber. Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when any of the coating lines (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1) are operating.
(9VAC5-80-110 and Condition 11 of the 11/13/19 Permit Document)

41. **Process Equipment Requirements – Monitoring** – At least one time per calendar week, an observation of the presence of visible emissions from each oxidizer stack (PCD1, PCD2, PCD3, PCD4, PCD5 & PCD7) shall be made. The presence of visible emissions shall require the permittee to:

    a. take timely corrective action such that the unit resumes operation with no visible emissions, or,

    b. conduct a visible emission evaluation (VEE) on the oxidizer stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the oxidizer stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observations have been completed. Timely corrective action shall be taken, if necessary, such that the oxidizer resumes operation within the 5 percent opacity limit.

c. If visible emissions observations conducted for a particular source during twelve consecutive weeks show no visible emissions, the permittee with DEQ concurrence, may reduce the monitoring frequency to once per calendar month for that source. Any time the monthly visible emissions inspections show observable opacity, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

The permittee shall maintain an observation log for each unit to demonstrate compliance. The log shall include the date and time of the observation, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action and the name of the observer. If an oxidizer (PCD1, PCD2, PCD3, PCD4, PCD5 & PCD7) has not been operated for any period during the entire week, it shall be noted in the log book. (9VAC5-80-110 E & K)

Recordkeeping

42. **Process Equipment Requirements – Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Blue Ridge Regional Office. These records shall include, but are not limited to:

a. Annual consumption of all VOC containing adhesives, coatings, cleaners, and other materials used in saturation operations and adhesive operations necessary to demonstrate compliance with Conditions 28 and 29, calculated monthly as the sum of each consecutive 12 month period.

b. Annual throughput of VOC in saturation operations and adhesive operations necessary to demonstrate compliance with Conditions 28 and 29, calculated monthly as the sum of each consecutive 12 month.

c. Continuous temperature records for each incinerator unit (oxidizer) during all periods of operation, excepting brief period of instrument maintenance or repair.

d. Results of all stack tests, visible emission evaluations and performance evaluations.

e. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, water content, and solids content for each coating, adhesive, cleaning solution, or other VOC-containing material referenced in Condition 42 a.

f. Monthly and annual calculated emissions in tons of volatile organic compounds, including fugitive emissions, necessary to demonstrate compliance with Conditions 34 and 35. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period. Emission calculations shall be based on pollutant throughput, destruction efficiencies, and capture efficiencies acceptable to VDEQ.

g. Records of scheduled and unscheduled maintenance, and operator training for the incinerator units (oxidizers).

h. Observation logs for the oxidizers (PCD1, PCD2, PCD3, PCD4, PCD5, & PCD7) as required by Condition 41.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 27 of the 11/13/19 Permit Document)

43. **Process Equipment Requirements – Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

a. The permittee shall maintain the following information at all times:
   i. Coating application system number
   ii. Method of application
   iii. Number and types of coats applied to the substrate
   iv. Drying method
   v. Substrate type

b. The permittee shall maintain the following information on a daily basis:
   i. Coating application system number
   ii. Time period of each application run
   iii. Coating identification number
   iv. Diluent and clean up solvent identification numbers

c. The permittee shall maintain the following information for each coating at all times:
   i. Supplier name, coating name, and identification number
   ii. Coating density (lb/gal)
   iii. Volatile content of coating as supplied (percent by weight)
   iv. Water content of coating as supplied (percent by weight)
   v. Exempt solvent content of coating as supplied (percent by weight)
   vi. Solids content of coating as supplied (percent by volume)
   vii. Name of diluent added, if any
   viii. Identification number of diluent
   ix. Diluent VOC density (lbs/gal)
   x. VOC content of diluent (percent by weight)
   xi. Exempt solvent content of diluent (percent by weight)
   xii. Diluent/coating ratio (gal diluent/gal coating)

d. Daily and annual hours of operation of each coating line (SFRC-2 through SFRC-9, AMRC-1, (DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1). Annual hours of operation shall be calculated monthly as the sum of each

consecutive 12-month period, demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

e. Daily and annual throughput (in gallons) of each cleaning solution, coating, and diluent, used in each coating line (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

f. Daily and annual VOC emissions from each coating line (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

g. Monthly and annual target resin matrix throughput, in tons, for the target molding machine (TM-1). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

h. Average daily and monthly VOC content (in lbs VOC/gal coating excluding water or lbs VOC/gal coating solids) from each coating line (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1).

i. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, toxic compound content, water content, solids content, and density for each coating, adhesive, and diluent used.

j. Operation and control device monitoring records for each coating line (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) and parts washer (PW-1) and associated oxidizers as required in Condition 39 and 40.

k. The permittee shall maintain the following information at all times:
   i. Control device identification number and model number
   ii. Manufacturer
   iii. Installation date
   iv. Coating application systems controlled
   v. Whether or not the control device is always in operation when the system it is serving is in operation

vi. Type of control device
vii. Destruction or removal efficiency
viii. Date tested
ix. Design combustion temperature (°F) for thermal incinerators
x. Emission test results, including inlet VOC concentration (ppm), outlet VOC concentration (ppm), method of concentration determination, and date of determination
xi. Type and location of capture system
xii. Capture efficiency (percent)
xiii. Method of determining capture efficiency

l. Results of all stack tests and visible emissions evaluations.

m. Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 28 of the 11/13/19 Permit Document)

Notifications

44. **Process Equipment Requirements - Notifications** - The permittee shall furnish written notification to the Blue Ridge Regional Office of:

a. The actual date on which construction of each emission unit (SFRC-2 through SFRC-9, AMRC-1, DL1, SFRC10 through 14, DL3 through 7, and PW-1) commenced within 30 days after such date.

b. The anticipated start-up date of each emission unit (SFRC-2 through SFRC-9, AMRC-1, DL1, SFRC10 through 14, DL3 through 7, and PW-1) postmarked not more than 60 days nor less than 30 days prior to such date.

c. The actual start-up date of each emission unit (SFRC-2 through SFRC-9, AMRC-1, DL1, SFRC10 through 14, DL3 through 7, and PW-1) and the oxidizer(s) (PCD3, PCD4, PCD5, and PCD7) within 15 days after such date.

d. The anticipated date of the performance test(s) required by Condition 47 of each associated capture device postmarked at least 30 days prior to such date.

(9VAC5-80-110 and Condition 29 of the 11/13/19 Permit Document)

Testing

45. **Process Equipment Requirements – Testing** - Each emission unit and oxidizer shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using

appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-80-110 and Condition 24 of the 11/13/19 Permit Document)

46. **Process Equipment Requirements – Testing - COMPLETED** - Initial performance tests shall be conducted for volatile organic compounds from the Segment Facing Roll Coater to determine compliance with the capture efficiency requirement contained in Condition 21. The tests shall be performed within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-60-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-60-100. The details of the tests are to be arranged with the Blue Ridge Regional Office.

    The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
    (9VAC5-80-110 and Condition 25 of the 11/13/19 Permit Document)

47. **Process Equipment Requirements – Testing -** Initial performance tests shall be conducted for volatile organic compounds from each coating line (SFRC-2 through SFRC-9, AMRC-1, DL1, DL2, SFRC10 through 14, and DL3 through 7) to determine compliance with the capture efficiency contained in Condition 23 or 24. The tests shall be performed within 60 days after achieving the maximum production rate at which each unit will be operated but in no event later than 180 days after start-up of each unit. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
    (9VAC5-80-110 and Condition 26 of the 11/13/19 Permit Document)

48. **Process Equipment Requirements – Testing** – At an interval not to exceed once every five years, the permittee shall conduct performance tests from one oxidizer (either PCD1 or PCD2) to demonstrate compliance with the control efficiency requirement contained in Condition 19. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
    (9VAC5-80-110)

49. **Process Equipment Requirements – Testing** – At an interval not to exceed once every five years, the permittee shall conduct performance tests from one oxidizer (either PCD3, PCD4, PCD5, or PCD7) to demonstrate compliance with the control efficiency requirement contained in Condition 22. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9VAC5-80-110)

MACT Subpart MMMM – Surface Coating of Miscellaneous Metal Parts and Products – (Adh2, AdhSolv, TC (TC1), AMRC-1, SFRC2-14, DL1, DL2, DL3-DL7)

50. **MACT Subpart MMMM** – The permittee shall comply with 40 CFR 63 Subpart MMMM by complying with the following:

    a. The permittee shall comply with the requirements of 40 CFR 63 Subpart JJJJ as listed in Conditions 51 through 59.

    b. The permittee shall comply with the calculation and notification requirements of 40 CFR 63.3881(e)(2)(ii).

    c. If a change in "predominant activity" at the source occurs such that 40 CFR 63.3881(e)(2) does not allow for compliance with Subpart MMMM via compliance with this permit, the permittee shall request a modification to this permit to include the applicable requirements from Subpart MMMM.

    (9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3881)

MACT Subpart JJJJ – Paper and Other Web Coating – (Sat2, SatSolv)

General Compliance Requirements

51. **MACT Subpart JJJJ** - The permittee shall comply with the general provisions of 40 CFR 63 Subpart A as specified in Table 2 of 40 CFR 63 Subpart JJJJ.
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3340)

Emission Standards

52. **MACT Subpart JJJJ** - The permittee shall limit organic HAP emissions in compliance with one of the options in 40 CFR 63.3320(b)(1) – (4).

(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3320)

53. **MACT Subpart JJJJ -** The permittee shall meet the operating limits in Table 1 of 40 CFR 63 Subpart JJJJ for each oxidizer and capture system.
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3321)

General Requirements for Monitoring and Performance Tests

54. **MACT Subpart JJJJ -** The permittee shall operate a continuous parameter monitoring system for each oxidizer in accordance with 40 CFR 63.3350(e).
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3350(a)(3))

55. **MACT Subpart JJJJ -** The permittee shall monitor each capture system operating parameter in accordance with 40 CFR 63.3350(f).
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3350(a)(4))

56. **MACT Subpart JJJJ -** The permittee shall conduct performance tests as required in 40 CFR 63.3360(a)(2).
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3360)

Requirements for Showing Compliance

57. **MACT Subpart JJJJ -** The permittee shall demonstrate compliance with Condition 52 in accordance with 40 CFR 63.3370(e), (f), (g), or (h), as applicable.
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3370(a)(5))

Notifications, Reports and Records

58. **MACT Subpart JJJJ -** The permittee shall submit notifications and reports in accordance with 40 CFR 63.3400(b), (c), (d), (e), (f), and (g).
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3400(a))

59. **MACT Subpart JJJJ -** The permittee shall maintain records required in 40 CFR 63.3410(a).
(9VAC5-80-110, 9VAC5-60-100, and 40 CFR 63.3410(a))

Process Equipment Requirements – (PS-1)

Limitations

60. **Process Equipment Requirements – Limitations -** Particulate emissions from PS-1 processes shall be controlled by a fabric filter baghouse (DC-1). The fabric filter baghouse shall be provided with adequate access for inspection and shall be in operation when any of the associated processes are operating.

(9VAC5-80-110 and Condition 1 of the 10/06/17 Permit Document)

61. **Process Equipment Requirements – Limitations** - Visible emissions from the fabric filter baghouse (DC-1) shall not exceed 5% opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed 20% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9VAC5-80-110 and Condition 5 of the 10/06/17 Permit Document)

62. **Process Equipment Requirements – Limitations** - Emissions from the fabric filter baghouses (DC-1) shall not exceed the limits specified below:

Particulate Matter (PM) (including condensable PM)	0.005 gr/dscf	11.3 tons/yr
PM10	0.005 gr/dscf	11.3 tons/yr
PM2.5	0.005 gr/dscf	11.3 tons/yr

(9VAC5-80-110 and Condition 4 of the 10/06/17 Permit Document)

Monitoring

63. **Process Equipment Requirements – Monitoring** - The fabric filter baghouse (DC-1) shall be equipped with a device to continuously measure differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter baghouse is operating. The permittee shall establish a normal operating range for the differential pressure drop across the fabric filter based upon the manufacturer's recommendations or developed from observations recorded from the monitoring device during normal operation. The permittee shall maintain written documentation of this range.
(9VAC5-80-110 and Condition 2 of the 10/06/17 Permit Document)

64. **Process Equipment Requirements – Monitoring** - To ensure good performance, the monitoring device used to continuously measure differential pressure drop shall be observed by the permittee with a frequency of not less than once per day. The permittee shall keep a log of these observations.
(9VAC5-80-110 and Condition 3 of the 10/06/17 Permit Document)

65. **Process Equipment Requirements – Compliance Assurance Monitoring (CAM)** – The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (DC-1) controlling PM10 from Friction Material Grinding and Sanding (PS-1 processes). For the purposes of this permit, PM10 from Friction Material

Grinding and Sanding (PS-1 processes) is referred to as "PSEU1:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Appendix A) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 93; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 94; or (3) otherwise approved by the DEQ conforming with Condition 87, including, but not limited to, changes initiated by DEQ.
(9VAC5-80-110 and 40 CFR 64.6(c))

Recordkeeping

66. **Process Equipment Requirements – Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

    a. Monitoring device records for the fabric filter baghouse (DC-1) as required in Condition 64.

    b. The normal operating range for the differential pressure drop across the fabric filter as required in Condition 63.

    c. Results of all stack tests and visible emission evaluations.

    d. Scheduled and unscheduled maintenance and operator training.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110 and Condition 7 of the 10/06/17 Permit Document)

Testing

67. **Process Equipment Requirements – Testing** - The fabric filter baghouse (DC-1) shall be installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
    (9VAC5-80-110 and Condition 6 of the 10/06/17 Permit Document)

Process Equipment Requirements – (ST3 and ST4)

Limitations

68. **Process Equipment Requirements – Limitations** - Acidic emissions from the surface treatment lines #3 (ST3) and #4 (ST4) shall be controlled by total enclosure of the process

equipment. The total enclosure shall have a capture efficiency of 100% as determined by EPA Method 204 (reference 40 CFR 51, Appendix M), or alternate methods as approved by the DEQ.
(9VAC5-80-110 and Condition 30 of the 11/13/19 Permit Document)

69. **Process Equipment Requirements – Limitations** - Acidic emissions from the surface treatment line #3 (ST3) shall be controlled by an alkaline scrubber having a minimum control efficiency of 98.0 percent. The scrubber shall be provided with adequate access for inspection and shall be in operation when the surface treatment process, including storage, process, and transfer tanks and equipment, contains acid. The scrubber shall have a minimum three hour average liquid flow rate and a minimum three hour average liquid pH as determined by performance testing acceptable to DEQ demonstrating compliance with the minimum control efficiency requirement.
(9VAC5-80-110, 9VAC5-80-110 E & K and Condition 31 of the 11/13/19 Permit Document)

70. **Process Equipment Requirements – Limitations** - Acidic emissions from the surface treatment line #4 (ST4) shall be controlled by two alkaline scrubbers (PCD6, PCD8) in series having an overall minimum control efficiency of 98.0 percent. The scrubbers shall be provided with adequate access for inspection and shall be in operation when the surface treatment process, including storage, process, and transfer tanks and equipment, contains acid. The scrubbers shall have a minimum three hour average liquid flow rate and a minimum three hour average liquid pH as determined by performance testing acceptable to DEQ demonstrating compliance with the overall minimum control efficiency requirement.
(9VAC5-80-110, 9VAC5-80-110 E & K and Condition 32 of the 11/13/19 Permit Document)

71. **Process Equipment Requirements – Limitations** - The total throughput of hydrochloric acid (on a 100% acid basis) used in the surface treatment line #3 (ST3) shall not exceed 65.7 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 35 of the 11/13/19 Permit Document)

72. **Process Equipment Requirements – Limitations** - The total throughput of hydrochloric acid (on a 100% acid basis) used in the surface treatment line #4 (ST4) shall not exceed 54.8 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 36 of the 11/13/19 Permit Document)

73. **Process Equipment Requirements – Limitations** - Emissions from the surface treatment line #3 (ST3), including storage, process, and transfer tanks and equipment shall not exceed the limits specified below:

Hydrochloric Acid (HCl)	0.3 lbs/hr	1.3 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 71.
(9VAC5-80-110 and Condition 37 of the 11/13/19 Permit Document)

74. **Process Equipment Requirements – Limitations** - Emissions from the surface treatment line #4 (ST4), including storage, process, and transfer tanks and equipment shall not exceed the limits specified below:

Hydrochloric Acid (HCl)	0.25 lbs/hr	1.1 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 72.
(9VAC5-80-110 and Condition 38 of the 11/13/19 Permit Document)

75. **Process Equipment Requirements – Limitations** - Visible emissions from the alkaline scrubbers shall not exceed five percent (5%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent (10%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times during startup, shutdown, and malfunction.
(9VAC5-80-110 and Condition 39 of the 11/13/19 Permit Document)

Monitoring

76. **Process Equipment Requirements – Monitoring** – The scrubber controlling acidic emissions from the surface treatment line #3 (ST3) shall be equipped with flow and pH meters. The scrubber liquid flow rate and scrubber liquid pH shall be recorded a minimum of once per work shift.
(9VAC5-80-110 and Condition 31 of the 11/13/19 Permit Document)

77. **Process Equipment Requirements – Monitoring** – The scrubbers controlling acidic emissions from the surface treatment line #4 (ST4) shall be equipped with flow and pH meters. The scrubber liquid flow rate and scrubber liquid pH shall be recorded a minimum of once per work shift.
(9VAC5-80-110 and Condition 32 of the 11/13/19 Permit Document)

78. **Process Equipment Requirements – Monitoring** – Surface treatment line #3 (ST3) and surface treatment line #4 (ST4) shall each be equipped with a device to continuously measure the differential pressure drop across the total enclosure of the process equipment. (9VAC5-80-110 and Condition 33 of the 11/13/19 Permit Document)

79. **Process Equipment Requirements – Monitoring** – To ensure good performance, the control monitoring device used to continuously measure the differential pressure across the total enclosure of the process equipment for surface treatment line #3 (ST3) and surface treatment line #4 (ST4) shall be observed with a frequency of not less than once per shift. The permittee shall keep a log of observations from the control monitoring device. (9VAC5-80-110 and Condition 34 of the 11/13/19 Permit Document)

80. **Process Equipment Requirements – Monitoring** – At least one time per calendar week, an observation of the presence of visible emissions from the surface treatment line #3 (ST3) and surface treatment line #4 (ST4) scrubber (PCD6, PCD9) stacks shall be made. The presence of visible emissions shall require the permittee to:

    a. take timely corrective action such that the unit resumes operation with no visible emissions, or,

    b. conduct a visible emission evaluation (VEE) on the scrubber stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the scrubber stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observations have been completed. Timely corrective action shall be taken, if necessary, such that the scrubber resumes operation within the 5 percent opacity limit.

    c. If visible emissions observations conducted for a particular source during twelve consecutive weeks show no visible emissions, the permittee with DEQ concurrence, may reduce the monitoring frequency to once per calendar month for that source. Any time the monthly visible emissions inspections show observable opacity, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

    The permittee shall maintain an observation log for each scrubber stack to demonstrate compliance. The log shall include the date and time of the observation, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action and the name of the observer. If surface treatment line #3 (ST3) or surface treatment line #4 (ST4) has not been operated for any period during the entire week, it shall be noted in the log book.
    (9VAC5-80-110 E & K)

81. **Process Equipment Requirements – Compliance Assurance Monitoring (CAM)** – The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the scrubber (PCD9) controlling HCl from surface treatment line 3 (ST3). For the

purposes of this permit, HCl from surface treatment line 3 (ST3) is referred to as "PSEU2:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Appendix B) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 93; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 94; or (3) otherwise approved by the DEQ conforming with Condition 87, including, but not limited to, changes initiated by DEQ. (9VAC5-80-110 and 40 CFR 64.6(c))

82. **Process Equipment Requirements – Compliance Assurance Monitoring (CAM)** – The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the scrubbers (PCD6 & PCD8) controlling HCl from surface treatment line 4 (ST4). For the purposes of this permit, HCl from surface treatment line 4 (ST4) is referred to as "PSEU3:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Appendix C) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 93; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 94; or (3) otherwise approved by the DEQ conforming with Condition 87, including, but not limited to, changes initiated by DEQ. (9VAC5-80-110 and 40 CFR 64.6(c))

Recordkeeping

83. **Process Equipment Requirements – Recordkeeping** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

    a. Material Safety Data Sheets (MSDS) or other vendor information showing toxic pollutant content for each coating, adhesive, cleaning solution or other toxic pollutant containing material used in the automotive parts manufacturing process used.

    b. Monthly and annual throughput (in tons) of HCl to demonstrate compliance with Conditions 71 and 72. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

    c. Annual hydrochloric acid (HCl) emissions calculated monthly as the sum of each consecutive 12-month period to demonstrate compliance with Conditions 73 and 74. Emissions calculations shall be based on throughput, control efficiencies and capture efficiencies.

    d. Records of scheduled and unscheduled maintenance, and operator training for ST3 and ST4, associated total enclosure and the alkaline scrubbers controlling ST3 and ST4.

e. Once per shift record of ST3 and ST4 enclosure differential pressure, scrubbing liquid pH and flow rate for the alkaline scrubbers controlling ST3 and ST4 during all shifts of operation.

f. Records of all performance stack tests.

g. Operation and control device monitoring records for the total enclosure of the process equipment for ST3 and ST4 as required in Condition 79.

h. Observation logs for the scrubbers (PCD6, PCD9) as required by Condition 80.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 42 of the 11/13/19 Permit Document)

Notifications

84. **Process Equipment Requirements – Notifications** - The permittee shall provide a written notification to the Blue Ridge Regional Office of:

a. The actual date on which construction of the second scrubber (PCD8) controlling acidic emissions (HCl) from surface treatment line #4 (ST4) commenced within 30 days after such date.

b. The anticipated start-up date of the second scrubber (PCD8) controlling acidic emissions (HCl) from surface treatment line #4 (ST4) postmarked not more than 60 days nor less than 30 days prior to such date.

c. The actual start-up date of the second scrubber (PCD8) controlling acidic emissions (HCl) from surface treatment line #4 (ST4) within 15 days after such date.

d. The anticipated date of the performance test required by Condition 86 postmarked at least 30 days prior to such date.

(9VAC5-80-110 and Condition 43 of the 11/13/19 Permit Document)

Testing

85. **Process Equipment Requirements – Testing** - The surface treatment lines (ST3 and ST4) shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested or at the appropriate locations and safe sampling platforms and access shall be provided.

(9VAC5-80-110 and Condition 40 of the 11/13/19 Permit Document)

86. **Process Equipment Requirements – Testing -** Initial performance tests shall be conducted for hydrochloric acid (HCl) from the alkaline scrubbers (PCD6, PCD8) controlling Surface Treatment Line #4 (ST4) to determine compliance with the emission limit contained in Condition 74 and the control efficiency contained in Condition 70. The tests shall be performed within 60 days after the second alkaline scrubber (PCD8) in series with alkaline scrubber (PCD6) has been installed and is operational. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the test are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Blue Ridge Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9VAC5-80-110 and Condition 41 of the 11/13/19 Permit Document)

General Compliance Assurance Monitoring (CAM) Provisions

87. **Compliance Assurance Monitoring (CAM) -** Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:

    a. Indicator;
    b. Measurement Approach;
    c. Indicator Range or Condition(s) for Range Development; and
    d. The following performance criteria:
        i. Data Representativeness;
        ii. Verification of Operational Status;
        iii. QA/QC Practices and Criteria;
        iv. Monitoring Frequency;
        v. Data Collection Procedures; and
        vi. Averaging Period

    Changes to a CAM Plan pertaining to the information in this condition may require a permit modification.
    (9VAC5-80-110 and 40 CFR 64.6(c))

88. **Compliance Assurance Monitoring (CAM) -** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9. (9VAC5-80-110 and 40 CFR 64.6(c))

89. **Compliance Assurance Monitoring (CAM) -** At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9VAC5-80-110 and 40 CFR 64.7(b))

90. **Compliance Assurance Monitoring (CAM) -** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9VAC5-80-110 and 40 CFR 64.7(c))

91. **Compliance Assurance Monitoring (CAM) -** Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9VAC5-80-110 and 40 CFR 64.7(d)(1))

92. **Compliance Assurance Monitoring (CAM) -** Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9VAC5-80-110 and 40 CFR 64.7(d)(2))

93. **Compliance Assurance Monitoring (CAM) -** If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing

valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Blue Ridge Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9VAC5-80-110 and 40 CFR 64.7(e))

94. **Compliance Assurance Monitoring (CAM)** - For each PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition Number	Pollutant	
PSEU1	65	PM10	5 excursions in a semi-annual period
PSEU2	81	HCl	5% of the operating hours in a semi-annual period
PSEU3	82	HCl	5% of the operating hours in a semi-annual period

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

a. Improved preventative maintenance practices;

b. Process operation changes;

c. Appropriate improvements to control methods;

d. Other steps appropriate to correct control performance; and

e. More frequent or improved monitoring.
(9VAC5-80-110 E and 40 CFR 64.8(a) and (b))

95. **Compliance Assurance Monitoring (CAM) Recordkeeping** - The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to 40 CFR 64.8 and any activities undertaken to

implement a quality improvement plant (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9VAC5-80-110 and 40 CFR 64.9(b))

96. **Compliance Assurance Monitoring (CAM) Reporting -** The permittee shall submit CAM reports for each PSEU as part of the Title V semi-annual monitoring reports required by General Condition 108 of this permit to the Blue Ridge Regional Office. Such reports shall include at a minimum:

    a. Identification of the PSEU for which the report is made;

    b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

    c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

    d. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

    (9VAC5-80-110 F and 40 CFR 64.9(a))

Facility-Wide Requirements

97. **Facility-Wide Requirements – Limitations** – Total emissions from the facility shall not exceed the limits specified below:

Volatile Organic Compounds	139.5 tons/yr

    (9VAC5-80-110 and Condition 18 of the 11/13/19 Permit Document)

98. **Facility-Wide Requirements – Limitations** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110, Condition 12 of the 10/06/17 Permit Document and Condition 47 of the 11/13/19 Permit Document)

99. **Facility-Wide Requirements – Recordkeeping -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Blue Ridge Regional Office. These records shall include, but are not limited to:

a. Monthly and annual calculated emissions in tons of volatile organic compounds, including fugitive emissions, necessary to demonstrate compliance with Condition 97. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period. Emission calculations shall be based on pollutant throughput, destruction efficiencies, and capture efficiencies acceptable to VDEQ.

(9VAC5-80-110 and Condition 27 of the 11/13/19 Permit Document)

100. **Facility-Wide Requirements – Recordkeeping -** The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown, or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9VAC5-80-110 and Condition 48 of the 11/13/19 Permit Document)

101. **Facility-Wide Requirements – Testing -** The facility shall be constructed or modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-80-110 and Condition 23 of the 11/13/19 Permit Document)

Insignificant Emission Units

102. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
AMRC1-Methanol	13 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
AMRC1-Adhesive	13 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
AMRC1-Mixing	13 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
TC1-Methanol	11 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
TC1-Adhesive	11 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
TC1-Mixing	17 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
TC2-Mixing	17 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC3 Methanol	11 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC3 Adhesive	11 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC3 Mixing	11 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC4 Methanol	11 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC4 Adhesive	11 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
Adh2-RC4 Mixing	11 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC1-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC1-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC1-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC2-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC2-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC2-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC3-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC3-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC3-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC4-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC4-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC4-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC5-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC5-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC5-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC6-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC6-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC6-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	

SFRC7-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC7-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC7-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC8-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC8-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC8-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC9-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC9-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC9-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC10-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC10-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC10-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC11-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC11-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC11-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC12-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC12-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC12-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
SFRC13-Methanol	8 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
SFRC13-Adhesive	8 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
SFRC13-Mixing	8 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
DL1-Methanol	11 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
DL1-Adhesive	13 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
DL1-Mixing	11 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
DL-2 Methanol	11 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
DL-2 Adhesive	13 gallon adhesive	9VAC5-80-720B	VOC, HAP	
DL2-Mixing	9 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
DL3-Methanol	9 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
DL3-Adhesive	13 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
DL3-Mixing	9 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
DL4-Methanol	9 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
DL4-Adhesive	9 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
DL4-Mixing	9 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
Sat2-Adhesive	10 gallon adhesive tank	9VAC5-80-720B	VOC, HAP	
Sat2-Mixing	10 gallon mixing tank	9VAC5-80-720B	VOC, HAP	
B2000	2000 gallon resin tank	9VAC5-80-720B	VOC, HAP	
A5000	5000 gallon resin tank	9VAC5-80-720B	VOC, HAP	
A180	180 gallon resin tank	9VAC5-80-720B	VOC, HAP	
B180	180 gallon resin tank	9VAC5-80-720B	VOC, HAP	

C110	110 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
B1600	1600 gallon resin tank	9VAC5-80-720B	VOC, HAP	
A1500	1500 gallon resin tank	9VAC5-80-720B	VOC, HAP	
A2000	2000 gallon resin tank	9VAC5-80-720B	VOC, HAP	
C1600	1600 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
C8000	8000 gallon methanol tank	9VAC5-80-720B	VOC, HAP	
A350-1	350 gallon resin tank	9VAC5-80-720B	VOC, HAP	
A350-2	350 gallon resin tank	9VAC5-80-720B	VOC, HAP	
ST4 HCL	1400 gallon HCl tank	9VAC5-80-720B	HAP	
CSB HCl	5500 gallon HCl tank	9VAC5-80-720B	HAP	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

Permit Shield & Inapplicable Requirements

103. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
MACT QQQQQ	Friction Products MACT	From determination letter of June 16, 2005, this regulation does not apply to the facility.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9VAC5-80-110 and 9VAC5-80-140)

General Conditions

104. **General Conditions - Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-110)

105. **General Conditions - Permit Expiration**

a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.

d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.

e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

106. **General Conditions -Recordkeeping and Reporting -** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

    a. The date, place as defined in the permit, and time of sampling or measurements;

    b. The date(s) analyses were performed;

    c. The company or entity that performed the analyses;

    d. The analytical techniques or methods used;

    e. The results of such analyses; and

    f. The operating conditions existing at the time of sampling or measurement.

    (9VAC5-80-110)

107. **General Conditions -Recordkeeping and Reporting -** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9VAC5-80-110)

108. **General Conditions -Recordkeeping and Reporting -** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

    b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

        i. Exceedances of emissions limitations or operational restrictions;

        ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."

(9VAC5-80-110)

109. **General Conditions - Annual Compliance Certification** - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9VAC5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC5-80-110)

110. **General Conditions – Permit Deviation Reporting** - The permittee shall notify the Blue Ridge Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semiannual compliance report pursuant to Condition 108 of this permit.
(9VAC5-80-110 F. 2)

111. **General Conditions - Failure/Malfunction Reporting** - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Blue Ridge Regional Office such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Blue Ridge Regional Office.
(9VAC5-80-110 and 9VAC5-20-180)

112. **General Conditions - Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110)

113. **General Conditions - Duty to Comply** - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110)

114. **General Conditions - Need to Halt or Reduce Activity not a Defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110)

115. **General Conditions - Permit Modification** - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC5-80-110, 9VAC5-80-190, and 9VAC5-80-260)

116. **General Conditions - Property Rights** - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110)

117. **General Conditions - Duty to Submit Information** - The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-110)

118. **General Conditions - Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110)

119. **General Conditions - Duty to Pay Permit Fees** - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.
(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

120. **General Conditions - Fugitive Dust Emission Standards** - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-80-110 and 9VAC5-50-90)

121. **General Conditions - Startup, Shutdown, and Malfunction -** At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9VAC5-80-110 and 9VAC5-50-20 E)

122. **General Conditions - Alternative Operating Scenarios -** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.
(9VAC5-80-110)

123. **General Conditions - Inspection and Entry Requirements -** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

124. **General Conditions - Reopening for Cause -** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110)

125. **General Conditions - Permit Availability -** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-110 and 9VAC5-80-150)

126. **General Conditions - Permit Availability** – The permittee shall keep a copy of the 10/6/17 NSR permit and 11/13/19 combined SOP/NSR permit on the premises of the facility to which it applies.
(9VAC5-80-110, Condition 17 of the 10/06/17 Permit Document and Condition 52 of the 11/13/19 Permit Document)

127. **General Conditions - Transfer of Permits**

a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-110 and 9VAC5-80-160)

128. **General Conditions - Permit Revocation or Termination for Cause** - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)

129. **General Conditions - Duty to Supplement or Correct Application** - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-110 and 9VAC5-80-80 E)

130. **General Conditions - Stratospheric Ozone Protection** - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC5-80-110 and 40 CFR Part 82)

131. **General Conditions – Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61)

Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-110)

132. **General Conditions - Accidental Release Prevention -** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (9VAC5-80-110 and 40 CFR Part 68)

133. **General Conditions - Changes to Permits for Emissions Trading -** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-110)

134. **General Conditions - Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

    (9VAC5-80-110)

Appendix A (PSEU1)

COMPLIANCE ASSURANCE MONITORING PLAN
Friction Material Grinding and Sanding (PS-1)
Dust Collector (DC-1)
Dynax America Corporation
Registration Number 21279

EMISSION UNIT DESCRIPTION

Dynax America Corporation manufactures automatic transmission components: friction disks, mating plates, torque converter clutches and clutch pack assemblies for power train systems. The sizing, cutting, shaping, grinding and trimming activities required to produce these components generates paper dusts. In order to maintain a clean plant environment, a pneumatic system is used to collect the dusts from each point of generation to a fabric filter dust collector for collection and removal from the plant air.

The pneumatic system captures paper dusts that are generated by 20 different units used for Friction Material Grinding and Sanding. The units are grouped into one source with a unit reference **PS-1**. The paper dusts are vented to a Donaldson Torit Fabric Filter Baghouse (Model 484-RF-10), which is referenced as Dust Collector (DC-1). Table 1 lists all the equipment in PS-1 that vents to DC-1.

Table 1: Individual equipment included in PS-1 that vents to DC-1 dust collector

Ref. No	Description of Individual Equipment in PS-1
FG-400	Total Face Grinding Unit No. 4
FG-100	Total Face Grinding Unit No. 1
FG-200	Total Face Grinding Unit No. 2
FFG-300	Total Face Grinding Unit No. 3
CIG-100	Cat Line Cut-in-Grove Unit 1
CIG-200	Cat Line Cut-in-Groove Unit 2
SZ100	TC Sizer
BD100	Nakayama Machinery
OD100	Disc Line 1 OD Grind
CH-100-1	Disc Line 1 Chamfer 1
CH-100-2	Disc Line 1 Chamfer 2
COD 100	Cat Line OD Grind
CDL 100	Cat Line Dry Lap
ID 100	Disk Line 2 ID Grind
JB 200	Disk Line 2 Jet Blow
RT 100	Disk Line 2 Rotary Sizer 1
RT 200	Disk Line 2 Rotary Sizer 2
OD 300	Disk Line 3 OD Grind (Tetsuya)

OD 500	Disk Line 3 OD Grind (Duratec)
SA 200	Saturation 2 Press

CONTROL SYSTEM
Local exhaust hoods are located at each unit operation to capture the dust generated during process operation. Dust emissions from each unit is ducted to the main exhaust line feeding the dust collector DC-1, where the dust is collected and removed from the plant air.

APPLICABLE REQUIREMENTS
PM/PM10 emission limit: 0.005 gr/dscf , 11.3 tons/yr (Condition 4 of the 10/6/17 NSR permit)

The construction and operation of the friction material grinding and sanding equipment was authorized by a Stationary Source Permit to Construct and Operate issued by the Virginia Department of Environmental Quality (DEQ) on October 6, 2017. Based on the Engineering Analysis for the 10/6/17 permit, the uncontrolled PM10 emission for PS-1 is greater than 100 tons/yr threshold limit. Therefore, since PS-1 meets the general applicability requirements of 40 CFR 64.2, CAM would be applicable to DC-1.

To control the particulate emissions from PS-1, the permit requires the use of a fabric filter baghouse (DC-1) to capture the particulate emissions and equip the baghouse with a monitoring device to continuously measure the differential pressure drop across the fabric filter. The permit also requires tracking the monitoring device performance by observing the monitoring device with a frequency of not less than once per day, and maintaining a log of the observations.

MONITORING APPROACH

Dust Collector (DC-1)		
Indicator of Performance	**Pressure Drop**	**Visible Emission**
How Measured	Pressure drop across the dust collector (DC-1) is measured with a differential pressure gauge and recorded in the ignition data acquisition system.	Observation of visible emissions (VE) from the dust collector's (DC-1) exhaust.

Dust Collector (DC-1)		
Indicator Range (Excursion Threshold)	An excursion is defined as a pressure drop greater than -1 inch of water column (wc) or less than -6 inch wc over 1-hr average time period. An automatic alarm is indicated through the ignition monitoring system. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.	An excursion is defined as the presence of visible emissions. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.
QIP Threshold	Five excursions in a 6-month reporting period.	Five excursions in a 6-month reporting period.
Data Representativeness	Pressure taps are located on the baghouse inlet and outlet. The gauge has to be minimum accuracy of 0.3-inch wc	Measurements are made at the baghouse exhaust.
Verification of Operational Status	DC-1 is in operation when PS-1 equipment is operating.	DC-1 is in operation when PS-1 equipment is operating.
QA/QC Procedures	The pressure gauge is calibrated per manufacturer's recommendation, which is every 2 years for critical applications.	The observer will be familiar with baghouse operations and Reference Method 22 procedures.

Dust Collector (DC-1)		
Monitoring Frequency	Continuous	Visible emission observations will be conducted on a daily basis during daylight hours and during periods of excursion as indicated by the Ignition monitoring system.
Data Collection Procedures	Pressure drop data are electronically recorded in the ignition data acquisition system.	The VE observation is documented by the observer and records are kept onsite for a minimum of five years.
Averaging Period	1-hour average	N/A
Basis for Approach	Monitoring pressure drop provides a means of detecting a change in the operation of the dust collector that could lead to an increase in emissions. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device. An increase in pressure drop can indicate that cleaning cycle is not frequent enough and bags are becoming inefficient, cleaning equipment is damaged, or air flow has increased. A decrease in pressure drop may indicate broken or loose bags in the dust collector.	Visible emissions were selected as a performance indicator because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there will be no visible emissions from the dust collector's exhaust. Any increase in visible emissions indicates reduced performance of particulate matter emission control.

Appendix B (PSEU2)

COMPLIANCE ASSURANCE MONITORING PLAN
Surface Treatment Line #3 (ST3)
Dynax America Corporation
Registration Number 21279

EMISSION UNIT DESCRIPTION

Surface Treatment Line #3 (ST3) processes metal plates through a series of eight baths and two drying sections. The plates are attached to racks for processing. The racks move from bath to bath by a hoist on an overhead rail. The etching bath contains hydrochloric acid (HCl) for surface etching. HCl is a designated Hazardous Air Pollutant (HAP). The other baths serve to clean, rinse, neutralize, degrease and apply a rust inhibitor to the plates before drying. To contain HCl vapors for treatment, ST3 is totally enclosed except for an opening in the side wall to provide personnel access for loading and unloading the plate racks. The enclosure is vented to a 14,000 cfm caustic scrubber with a design efficiency of 99 percent in controlling HCl vapors generated by ST3.

CONTROL SYSTEM

ST3 is located in a room enclosure that provides 100 per cent capture of HCl vapors released during processing of plates. The enclosure qualifies as a permanent total enclosure (PTE) under EPA's Method 204 for determining capture efficiency.

The room enclosure vents to a wet, caustic, acid-fume, packed-bed scrubber. The scrubber recirculates a caustic solution (i.e., sodium hydroxide) over the packing. The etch line exhaust contacts the packing allowing the HCl to be neutralized through reaction with the caustic forming sodium chloride and water.

APPLICABLE REQUIREMENTS

HCl emission limit: 0.3 lbs/hr, 1.3 tons/yr (Condition 37 of the 11/13/19 SOP/NSR permit)

The construction and operation of ST3 was authorized by a Stationary Permit to Construct and Operate issued by the Virginia Department of Environmental Quality (DEQ) on March 19, 2013. ST3 is subject to the Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64. The uncontrolled emissions of HCl have the potential to exceed 10 ton per year, the major source threshold for an individual HAP which triggers CAM applicability.

To control HCl emissions, the permit requires the use of a total enclosure to capture the HCl emissions and the monitoring of room negative pressure to confirm 100 percent capture is

achieved. The permit requires tracking of scrubber performance by monitoring scrubber liquid flow rate and pH.

MONITORING APPROACH

	Packed-Bed Scrubber	
Indicator of Performance	Scrubber Liquid Flow Rate	Scrubber Liquid pH
How Measured	Liquid Flow Meter	pH sensor
Indicator Range **(Excursion Threshold)**	An excursion is defined as one 1-hour average below 140 gallons per minute or: one 1-hour average below the required minimum flow rate as determined by most recent compliance stack test demonstrating 98% control efficiency. Records of the scrubber liquid flowrate data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.	An excursion is defined as one 1-hour average below a pH of 7.0 or the pH of the scrubber liquid during the most recent compliance stack test demonstrating 98% control efficiency. Records of scrubber liquid pH data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.
QIP Threshold	5 percent of operating hours during a 6-month reporting period	5 percent of operating hours during a 6-month reporting period

	Packed-Bed Scrubber	
Data Representativeness	Flow rate sensor located in scrubber recirculation line as indicator of scrubber performance. Flow rate measurement accuracy: ± 5%	pH sensor located in scrubber recirculation line as indicator of scrubber performance. pH sensor accuracy is ± 0.2 pH units
Verification of Operational Status	ST3 is operating when the surface treatment process contains acid.	ST3 is operating when the surface treatment process contains acid.
QA/QC Procedures	Factory calibrated. Annual calibration in accordance with manufacturer's recommendations.	The pH sensor is calibrated at least monthly.
Monitoring Frequency	Continuous	Continuous
Data Collection Procedures	Computerized data acquisition system & data also recorded at least once during each operating shift	Computerized data acquisition system & data also recorded at least once during each operating shift
Averaging Period	1-hour average	1-hour average
Basis for Approach	Liquid to gas ratio is key operating parameter for scrubber performance. Minimum liquid flow rate based on scrubber design.	pH is accepted parameter for monitoring the ability of a caustic scrubber liquid to neutralize acid fumes; maintaining alkaline conditions in the scrubber liquor will facilitate neutralization of the acid conditions in the etch bath exhaust.

Appendix C (PSEU3)

COMPLIANCE ASSURANCE MONITORING PLAN
Surface Treatment Line #4 (ST4)
Dynax America Corporation
Registration Number 21279

EMISSION UNIT DESCRIPTION

Surface Treatment Line # 4 (ST4) processes metal plates through a series of baths for cleaning, surface treatment, rinsing and drying. The plates are loaded on racks, which moves immersed from bath to bath while suspended by an overhead rail hoist. The etching bath contains hydrochloric acid (HCl) for surface treatment. The other baths serve to clean, rinse, neutralize, degrease and apply rust inhibitor to the plates before drying. HCl is a known Hazardous Air Pollutant (HAP) and its emissions must be controlled. In order to contain HCl vapors from the surface treatment process, ST4 is totally enclosed except for an opening, which allows the plate racks to enter and exit the enclosure. The enclosure is vented to two caustic scrubbers in series, PCD 8 (a vertical scrubber) and PCD 6 (a horizontal scrubber), with air flows that range between 5,000 to 18,000-acfm. The two scrubbers in series (PCD8, PCD6) will have an overall minimum control efficiency of 98%.

CONTROL SYSTEM

ST4 is located in a room enclosure that provides 100 percent capture of HCl vapors released during processing of plates. The enclosure qualifies as a permanent total enclosure (PTE) under EPA's Method 204 for determining capture efficiency.

The air in the enclosed room vents to two wet, caustic, packed-bed scrubbers. The scrubbers recirculate caustic (sodium hydroxide) solution over the packing. The vented exhaust stream from the etch line contacts the wetted surface area of the packing allowing the HCl to react with the caustic and be neutralized to form sodium chloride and water. A portion of the scrubber liquor is purged to remove the sodium chloride and any other impurities.

APPLICABLE REQUIREMENTS

HCl emission limit: 0.25 lbs/hr, 1.1 tons/yr (Condition 38 of the 11/13/19 SOP/NSR permit)

The construction and operation of ST4 was authorized by a Stationary Permit to Construct and Operate issued by the Virginia Department of Environmental Quality (DEQ) on January 3, 2017. ST4, like Surface Treatment Line #3 (ST3) is subject to the Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64 because its uncontrolled emission of HCl have the potential to exceed 10 tons per year; which is the major source threshold for an individual HAP to trigger CAM applicability.

To control HCl emissions, the permit requires the use of a total enclosure to capture the HCl emissions and the monitoring of room negative pressure to confirm that 100 percent capture is

achieved. The permit requires tracking of scrubber performance by monitoring scrubber liquid flow rate and ph.

MONITORING APPROACH

PCD 8 (Vertical packed-Bed Scrubber) Performance Monitoring		
Indicator of Performance	Recirculating Scrubber Liquid Flow Rate	Scrubber Liquid pH
How Measured	Liquid Flow Meter	pH sensor
Indicator Range (Excursion Threshold)	Required minimum liquid flow rate will be determined based on compliance testing. An excursion is defined as one 1-hour average below the required minimum flow rate as determined by most recent compliance stack test demonstrating 98% control efficiency. Records of the scrubber liquid flowrate data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.	An excursion is defined as one 1-hour reading below a pH of 7.0 or below the pH of the scrubber liquid based on the most recent compliance stack test. Records of scrubber liquid pH data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.
QIP Threshold	5 percent of operating hours during 6-month reporting period	5 percent of operating hours during 6-month reporting period
Data Representativeness	Flow rate sensor located in scrubber recirculation line as indicator of scrubber performance. Flow rate measurement accuracy: ± 5%	pH sensor located in scrubber recirculation line as indicator of scrubber performance. pH sensor accuracy is ± 0.2 pH units
Verification of Operational Status	ST4 is operating when the surface treatment process contains acid.	ST4 is operating when the surface treatment process contains acid.

PCD 8 (Vertical packed-Bed Scrubber) Performance Monitoring		
QA/QC Procedures	Factory calibrated. Annual calibration in accordance with manufacturer's recommendations.	The pH sensor is calibrated at least monthly
Monitoring Frequency	Continuous	Continuous
Data Collection Procedures	Computerized data acquisition system & data also recorded at least once during each operating shift	Computerized data acquisition system & data also recorded at least once during each operating shift
Averaging Period	1-hour average	1-hour average
Basis for Approach	Liquid to gas ratio is key operating parameter for scrubber performance. Minimum liquid flow rate based on compliance test.	pH is an accepted parameter for monitoring the ability of a caustic scrubber liquid to neutralize acid fumes. Maintaining alkaline conditions in the scrubber liquor will facilitate neutralization of the acid conditions in the etch bath exhaust.

PCD 6 (Horizontal Packed-Bed Scrubber) Performance Monitoring		
Indicator of Performance	Recirculating Scrubber Liquid Flow Rate	Scrubber Liquid pH
How Measured	Liquid Flow Meter	pH sensor
Indicator Range (Excursion Threshold)	Required minimum liquid flow rate will be determined based on compliance testing. An excursion is defined as one 1-hour average below the required minimum flow rate as determined by most recent compliance stack test demonstrating 98% control efficiency. Records of the scrubber liquid flowrate data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.	An excursion is defined as one 1-hour reading below a pH of 7.0 or below the pH of the scrubber liquid based on the most recent compliance stack test. Records of scrubber liquid pH data shall be maintained and readily available for DEQ inspection. All excursions trigger investigation, corrective action and reporting on the semi-annual deviation report as necessary.
QIP Threshold	5 percent of operating hours during 6-month reporting period	5 percent of operating hours during 6-month reporting period
Data Representativeness	Flow rate sensor located in scrubber recirculation line as indicator of scrubber performance. Flow rate measurement accuracy: ± 5%	pH sensor located in scrubber recirculation line as indicator of scrubber performance. pH sensor accuracy is ± 0.2 pH units
Verification of Operational Status	ST4 is operating when the surface treatment process contains acid.	ST4 is operating when the surface treatment process contains acid.
QA/QC Procedures	Factory calibrated.	The pH sensor is calibrated at least monthly.

	Annual calibration in accordance with manufacturer's recommendations.	
Monitoring Frequency	Continuous	Continuous
Data Collection Procedures	Computerized data acquisition system & data also recorded at least once during each operating shift	Computerized data acquisition system & data also recorded at least once during each operating shift
Averaging Period	1-hour average	1-hour average
Basis for Approach	Liquid to gas ratio is key operating parameter for scrubber performance. Minimum liquid flow rate based on compliance test.	pH is an accepted parameter for monitoring the ability of a caustic scrubber liquid to neutralize acid fumes. Maintaining alkaline conditions in the scrubber liquor will facilitate neutralization of the acid conditions in the etch bath exhaust.